

# Work Order ID 57822

April 16, 2010 10:48:52 AM

Page 1

Item ID: D3911-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Basket Installation Stud, Lower

Start Date: 16/04/2010 Start Qty: 6.00

Required Date: 29/04/2010 Req'd Qty: 6.00

Reference: *Ind 10.04.16*

Cust Item ID:

Customer:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID      Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3911

C

110

0.00



Doosan

Doosan Lathe

Memo

1-Mill as per folio FA831 & dwg,

FOLIO REV: N/A

DWG REV: C

~~2-GRIND 13" RAD MANUALLY~~

3-Deburr as required

0.00

*SL 10/04/17*

*6*

120

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Quality Control

Memo

0.00

*SL 10/04/17*

*6*



The value adding parts of the process are obvious, so companies mistakenly focus on trying to make them go faster. The waste is not obvious, so it is not addressed. Lean focuses on eliminating the waste.

Lean is ongoing, there is no end to the search  
for  
waste!

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

10/04/17 *[Signature]*

6

0

Quality Control

140

Identify as per dwg & Stock Location: 098

0.00



Packaging

Memo

0.00

Packaging

*PC 10/4/20* *[Signature]*

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/04/20 *[Signature]*  
ME 10-4-20



## 7 deadly wastes

- 1. Overproduction***
- 2. Rework***
- 3. Transportation***
- 4. Inappropriate / over Processing***
- 5. Unnecessary Inventory***
- 6. Delays / Waiting***
- 7. Unnecessary Motions***

# Picklist Print

April 16, 2010 10:48:51 AM

Page 1  
T

Work Order ID: 57822



Parent Item: D3911-1

Parent Item Name: Basket Installation Stud, Lower

Start Date: 16/04/2010

Required Date: 29/04/2010

Comments: IPP RevA: New issue DD verified by:EC

IPP

Start Qty: 6.00

Required Qty: 6.00

REV:B AS PER REV B 10-03-23 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M303R1.000		Purchased	No			110	f	45.2000	1,5789			



303 Round Bar 1.00



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

MAT028

113325

45.2

45.2

1.6 SL 10/04/17



# What is Waste

An activity or output that ***adds cost but does not add value*** as perceived by the end-use customer.

**Elimination of waste** - activities that utilize resources but do not create value must be eliminated. This is an ongoing hunt! Ideally it will involve all employees.

If you could explain to your customer what ***every step of*** your operation cost, are there any steps your customer would not be willing to pay for?

- scrap
- rework
- looking for: parts, tools, material, people, etc.
- rescheduling
- expedited shipments
- ?????????

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 57822
<b>Description:</b> basket instl stud (lower)		<b>Part Number:</b> D3911-1
<b>Inspection Dwg:</b> D3911	<b>Rev:</b> C	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
8.00	+0 -0.10	7.95	✓			
.75	+0.030 -0	756	✓			
1.00	+0 -0.030	.999	✓			
.50	+0 -0.030	.498	✓			
1.000 <del>1.000</del>	+0 -0.10	1.000	✓			
2.00	+0 -0.030	2.001	✓			
2.88	+0 -0.030	2.881	✓			
.25	+0 -0.030	.250	✓			
.438	+0 -0.10	.435	✓			
0.129	+0.005 -0.001	.129	✓			
.500 (pitch)	+0 -0.10	.500	✓			
5.06	+0 -0.030	.060	✓			
5.130	+0 -0.030	.13	✓			
.375	+0 -0.010	.376	✓			
.065	+0 -0.010	.064	✓			

<b>Measured by:</b> JL	<b>Audited by:</b> DJD	<b>Prototype Approval:</b> N/A
<b>Date:</b> 10/04/17	<b>Date:</b> 10/04/17	<b>Date:</b> N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



# What is Waste

An activity or output that ***adds cost but does not add value*** as perceived by the end-use customer.

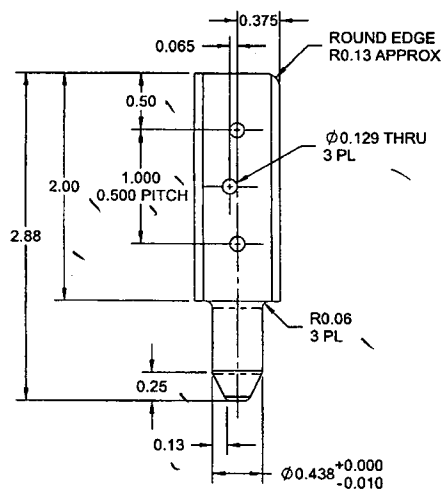
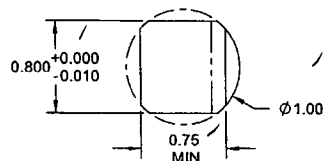
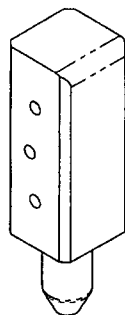
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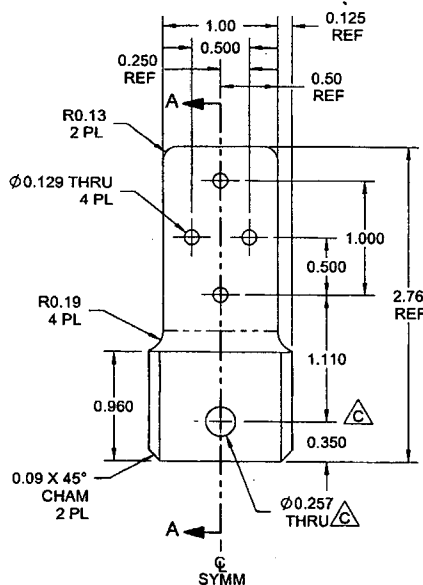
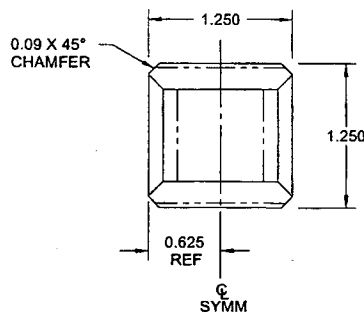
- scrap
- rework
- looking for: parts, tools, material, people, etc.
- rescheduling
- expedited shipments
- ?????????



8 7 6 5 4 3 2 1

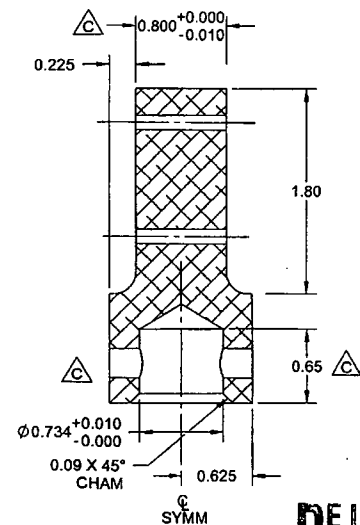
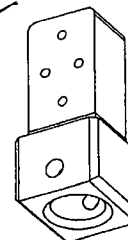


**D3911-1 BASKET INSTL STUD (LOWER)**



**D3911-3 AFT EYEBOLT RECEIVER**

*w/o 57822*







**SECTION A-A**

**RELEASED**  
2010-04-14

**NOTES:**

- 1) MATERIAL -1: 303/304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276 OR ASTM A582 PER DART SPEC M303R OR M304R
- 3: 303/304/316 STAINLESS STEEL BAR, PER ASTM A276 OR ASTM A582 PER DART SPEC M303B OR M304B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY AT ASSEMBLY
- 7) WEIGHT -1: 0.36 lbs  
-3: 0.73 lbs

DESIGN	JPH	<b>DART AEROSPACE LTD</b>	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3911	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		AFT HARDPOINT, BASKET	NTS
DATE	10.04.06	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1

# Value stream mapping during kaizen event.

